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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/307,574 05/07/99 MATTISON

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MMC2/0309
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EXAMINER

LUU, T

ART UNIT

PAPER NUMBER

2878

DATE MAILED:

03/09/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/307,574

Applicant(s)

MATTISON, PHILIP E.

Examiner

Thanh X Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

DETAILED ACTION

1. Applicant's election of Group I, claims 1-5 in Paper No. 4 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Claims 6-15 have been cancelled. Claims 1-5 are currently pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Deck.

Regarding claim 1, Deck discloses (see Figure 15 and column 10, lines 29-40) an apparatus comprising: an analog photocell (cell photodiode) adapted to capture light energy (sunlight) incident upon it as an analog signal; a sample-and-hold amplifier (not shown, see column 10, lines 37-40) coupled to the photocell and adapted to store the analog signal; a digital converter (ADC) coupled to the amplifier and transforming the analog signal into a digital value, the value proportional to the amount of light energy. The sample-and-hold type circuit of Deck is inherently a sample-and-hold amplifier, if

not, it would have been obvious to a person of ordinary skill in the art and require only routine skill in the art to provide a sample-and-hold amplifier in the apparatus of Deck since sample-and-hold type circuits and amplifiers are art recognized equivalent.

Regarding claim 5, Deck discloses using the apparatus as an imaging device.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deck in view of Gordon et al. (U.S. Patent 3,833,903).

Regarding claim 2, Deck does not disclose the specifics of the digital converter. Gordon et al. disclose (see Figure 2) a digital converter includes: a voltage controlled oscillator (46); a counter (50) coupled to the oscillator, and the oscillator setting the rate of increase of the counter, the rate proportional to a stored analog signal. Furthermore, analog to digital converters are notoriously well known. It is a matter of design choice and require only routine skill in the art the manner in which a analog to digital converter is implemented. Gordon et al. teach of a simple, yet efficient, manner to convert analog signals to digital signals. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the analog to digital converter of Gordon et al. in the apparatus of Deck to obtain a desired result.

Regarding claim 3, Gordon et al. does not explicitly disclose a register receiving the digital value. However, the digital value inherently is outputted to some sort of register or memory. Furthermore, the manner in which a signal is handled after conversion is design choice. Gordon et al. further disclose (see Figure 2) a timer (48) for synchronizing the output of the counter at the end of a predetermined time.

Regarding claim 4, Gordon et al. disclose compensation of the analog to digital converter. Gordon et al. do not disclose scaling the output of the oscillator in a dynamic range consistent with ambient lighting. However, it is notoriously well known in the art to bias or offset a signal in order to bring the signal within meaningful or measurable ranges. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to scale the output of the oscillator consistent with the ambient lighting in the apparatus of Deck in view of Gordon et al. in order to provide sufficient detection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is (703) 305-0539. The examiner can normally be reached on Monday-Friday from 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seungsook Ham, can be reached on (703) 308-4090. The fax phone number for the organization where the application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

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Art Unit: 2878

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March 7, 2001



Que T. Le
Primary Examiner